What is claimed is:

1.   A computer system comprising:

a host processor;

5   a peripheral device configured to transfer data to the host

processor over an attachment bus using at least first and second

types of data transfers, comprising:

a classifying circuit configured to separate the data

into a first class associated with the first type of

transfer and a second class associated with the second type

of transfer;

a first queue connected to receive the first class of

data from the classifying circuit;

a second queue connected to receive the second class

of data from the classifying circuit; and

a control circuit configured to place data from the

first queue onto the bus at a higher priority than data

from the second queue is placed onto the bus.

20   2.   The system of claim 1, where the bus is configured to

receive data during time periods of predetermined length, and

where the controller is configured to place at least a minimum

amount of data from the first queue onto the bus during each

time period.

10

3.   The system of claim 1, where the controller is configured to place data from the second queue onto the bus only when the bus is otherwise unoccupied.

4.   The system of claim 1, where the peripheral device includes a network interface component connected to receive the data from a computer network.

5.   The system of claim 4, wherein the data includes packetized voice data.

6.   The system of claim 1, where the bus is a Universal Serial Bus and the peripheral device is configured to transfer data over the bus using isochronous and bulk transfers.

7.   The system of claim 1, where the peripheral device is configured to deliver the data in packets of predetermined length.

8.   The system of claim 7, where the classifying circuit is configured to place each of the packets into one of the classes.

9.   The system of claim 7, where a portion of each packet indicates the type of transfer associated with the packet, and where the classifying circuit includes a storage device that stores information indicating each of the types of transfer that

5   is associated with at least one of the classes.

10.   The system of claim 9, where the classifying circuit includes a selection element configured to compare, for each packet, the information in the storage device to the data in the

10   portion of the packet that indicates the type of transfer and configured to select a corresponding one of the queues to receive the packet.

11.   A method comprising:

transferring data to a host processor over an attachment

15   bus using at least first and second types of data transfers and, in transferring the data

separating the data into a first class associated with the first type of transfer and a second class associated with the second type of transfer; and

20   placing data of the first class onto the bus at a higher priority than data of the second class is placed onto the bus.

12. The method of claim 11, further comprising placing data on the bus during time periods of predetermined length, where placing data of the first class on the bus includes placing at least a minimum amount of data of the first class
5   onto the bus during each time period.

13. The method of claim 11, further comprising placing data of the second class onto the bus only when the bus is otherwise unoccupied.

14. The method of claim 11, further comprising receiving the data from a computer network.

15. The method of claim 14, where receiving the data includes receiving packetized voice data.

16. The method of claim 11, where transferring data includes delivering the data in packets of predetermined length.

20 17. The method of claim 16, where separating the data includes placing each of the packets into one of the classes.

13

18.   The method of claim 16, further comprising storing information indicating each of the types of transfer that is associated with at least one of the classes.

19.   The method of claim 18, further comprising:

comparing, for each packet, the stored information to a portion of the data in the packet that indicates the type of transfer associated with the packet; and

placing the packet into a corresponding one of the classes.

14